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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,569	06/29/2001	Dimitri Papamoschou	3859P002DR	6929

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EXAMINER

CASAREGOLA, LOUIS J

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 08/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/895,569	PAPAMOSCHOU, DIMITRI
Examiner	Art Unit	
Louis J. Casaregola	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-35 is/are pending in the application.

4a) Of the above claim(s) 2,3,6,8,10,11,13,29-34 is/are withdrawn from consideration.

5) Claim(s) 14-19,28,35 is/are allowed.

6) Claim(s) 1,4,5,7,9,12,20-27 is/are rejected.

7) Claim(s) ____ is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. ____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ .	6) <input type="checkbox"/> Other: ____ .

Restriction & Election

The previous Office action of 7/8/02 includes a restriction requirement between Group I, apparatus claims 1-28 (now 1-28 and 35), and Group II, method claims 29-34. The previous Office action also holds the Group I apparatus claims to be constructively elected because this application is a reissue of Patent 5,916,127, and the patent includes no method claims corresponding to those in the present application. In his response of 1/13/03, applicant traverses the restriction requirement. Applicant's arguments have been considered but are not however effective in demonstrating that restriction is improper.

Applicant argues that the Group I apparatus is not distinct from the Group II method because, contrary to the position taken in the restriction requirement, the jet engine apparatus of Group I cannot be operated according to a method materially different than that of Group II. Applicant further emphasizes that the examiner has not provided an example of a materially different operating method for the Group I apparatus. This line of argument is not compelling. The restriction requirement clearly points out that the Group I apparatus does not necessarily have to be operated to control Mach waves as required by the Group II method, and that any mention of Mach wave control in Group I merely reflects an intended mode of use or result. The claimed apparatus, moreover, may simply comprise a heater or burner in a bypass duct as shown for example in Figure 1. Such a device could be operated merely to augment

thrust for takeoff, emergency maneuvers, etc. rather than for suppression of Mach waves as specified in the claimed method. The restriction requirement is therefore considered proper and is consequently made final. Method claims 29-34 remain withdrawn from consideration.

This case also includes a species election requirement; see the Office action of 7/8/02, page 3. In his response of 1/13/03, Applicant requests consideration of claims drawn to non-elected species upon allowance of a generic claim. Claims 2, 3, 6, 8, 10, 11, and 13 drawn to non-elected species are not however currently dependent on an allowable generic claim, and those claims thus stand withdrawn from consideration along with the non-elected method claims. A further action on the merits of elected claims 1, 4, 5, 7, 9, 12, 14-28, and 35 is set forth below.

Rejections – Recapture

Claims 1, 4, 5, 7, 9, 12, and 20-27 stand rejected under 35 USC 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. A broadening aspect is present in the reissue which was not present in the application for the patent. The record of Application 08/688,622 shows that the broadening aspect (in the reissue) relates to subject matter that applicant previously surrendered during the prosecution of the

application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 USC 251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application.

The claimed invention allowed in the '622 application comprises a jet engine with two adjacent exhaust streams distinguished by the fact that one is supersonic and the other is subsonic. This feature was specifically emphasized by claim amendments in applicant's paper filed 11/10/97 for the purpose of overcoming a rejection over prior art; i.e. the cited patents to Wolf et al and/or Hazen et al. The present claims have been broadened to the extent that they now lack a specific limitation requiring that the two exhaust streams are respectively supersonic and subsonic. This broadening of the claims thus constitutes an improper attempt to recapture subject matter surrendered in the application for the patent upon which the reissue is based.

Claim Rejections - 35 USC 102

Claims 1, 4, 5, 7, 9, 12, 20, 21, and 25-27 stand rejected under 35 USC 102(b) as being anticipated by Wolf et al or Hazen et al.

The present claims are so broad as to read on any jet engine having multiple working fluid streams and a combustor or other device that can change the temperature

of at least one stream. Such features can be found in almost all turbofan engines including those disclosed by Wolf and Hazen. The so-called "control mechanism to control at least one of temperature and velocity of at least one of the first and second streams" reads on either main combustor 36 and/or bypass duct combustor 54 of Wolf and on main combustor 14 and/or bypass duct combustor 65 of Hazen. Note also that claim language referring to the temperature/velocity control mechanism as being "to control Mach waves..." merely sets forth an intended use or desired result. There is nothing, moreover, in the broadly recited structure that renders the claimed invention any more capable of Mach wave control than the prior art.

Arguments

Applicant's arguments have been considered but are not effective in overcoming the rejections set forth above.

In his response of 1/13/03, applicant argues that the rejection under 35 USC 251 based on improper recapture should be withdrawn in view of the accompanying amendment to claim 1. A review of claim 1 in its present form, however, indicates that the amended language is not in fact adequate to overcome the rejection. As pointed out in the rejection, amended claim language used to secure allowance of the original patent requires a jet engine with two exhaust streams distinguished by the fact that one is supersonic and the other is subsonic. As amended, lines 16-18 of claim 1 now

describe the recited apparatus as being "to control **supersonic or subsonic** Mach wave formation from the first stream **relative to the second stream**" (emphasis added to identify new material). This amended claim language falls far short of actually requiring that the first stream be supersonic and the second stream be subsonic as specified by the final language in the original patent claims.

With regard to the rejection over prior art (35 USC 102), applicant states that comments concerning claim language relating to intended use or desired results should have been made under § 112 rather than § 102, and that the language in question does not render the claims invalid. It is emphasized however the rejection does not in fact attempt to invalidate the claims because of the particular language involved. Furthermore and contrary to what applicant suggests, comments concerning the claim language in this case are entirely proper in the § 102 rejection because issues relating to language interpretation are critical to the application of prior art.

Applicant additionally argues that the claim material directed to Mach wave formation constitutes permissible functional language rather than desired results. It is not disputed that this language is permissible, but in its present context, it is not linked directly to specific structure or means in such a way that phenomena related to Mach waves and/or their suppression will necessarily occur. Language relating to Mach waves thus does in fact describe a desired result, and such language does not serve to distinguish the claimed apparatus from structurally similar apparatus like that in the cited prior art.

Applicant additionally emphasizes that claim 1 has been amended to be more specific. The amended claim language has been reviewed but it does not however appear to include any specific structural features that define over the prior, and nothing in applicant's arguments serves to demonstrate otherwise.

Allowable Subject Matter

Claims 14-19, 28, and 35 are allowed.

If amended to clearly state that the respective first and second streams are supersonic and subsonic, claim 1 and all current dependent claims including claims to non-elected species, i.e. all of claims 1-13 and 20-27, will also be allowed. (Applicant is cautioned however that amendments attempting to change the claims in other ways will most likely require further examining effort and will consequently be unlikely to gain entry after final rejection.)

Allowance of this case is further contingent upon cancellation of non-elected method claim 29-34 and the surrender of the original patent.

Final Rejection

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVI-SORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

L. J. Casaregola
703-308-1027 (M-F; 7:30-4:00)
703-872-9302 FAX (9303 After Final)
August 25, 2003

L. J. Casaregola
LOUIS J. CASAREGOLA
PRIMARY EXAMINER